

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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First Named Inventor : RUMP, Neils  
Application No. : 09/913,686  
Patent No. : 7,434,052  
Issue Date : October 07, 2008  
Art Unit : 2131  
Confirmation Number : 3745  
Examiner : Henning, Matthew T.  
Title : Method and Device for Producing an  
Encrypted Payload Data Stream and Method  
and Device for Decrypting an Encrypted  
Payload Data Stream  
Attorney Docket No. : SCHO0093

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November 07, 2008

Commissioner of Patents and Trademarks  
Mail Stop: Certificate of Corrections Branch  
P.O. Box 1450  
Alexandria, VA. 22313-1450

### REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 CFR § 1.322

The enclosed Certificate of Correction (PTO/SB/44) for the above-identified patent is submitted under 37 CFR § 1.322.

Applicant requests the following correction be made:

CHANGE Section (75)

FROM 'Inventor: Niels Rump, Kent (GB)'  
TO 'Inventors: **Niels Rump**, Kent (GB);  
**Juergen Koller**, Erlangen (DE); and  
**Karlheinz Brandenburg**, Erlangen (DE)'

See attached Declarations and Filing Receipt for verification that the above information is correct.

The correction does not involve such changes in the patent as would constitute new matter or would require reexamination as set forth in 35 U.S.C. § 254. Therefore, no new matter is provided with this Certificate of Correction.

The Commissioner is hereby authorized to charge the fee set forth in 37 CFR § 1.20(a) and any additional fees due, to Deposit Account 07-1445 (Order No. SCHO0093).

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Michael A. Glenn', with a long horizontal stroke extending to the right.

Michael A. Glenn  
Reg. No. 30,176

Customer No. 22862

**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,434,052

APPLICATION NO.: 09/913,686

ISSUE DATE : October 07, 2008

INVENTOR(S) : Niels RUMP; Juergen KOLLER; and Karlheinz BRANDENBURG

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(75) Inventors: Niels Rump, Kent (GB);  
Juergen Koller, Erlangen (DE); and  
Karlheinz Brandenburg, Erlangen (DE)

**MAILING ADDRESS OF SENDER (Please do not use customer number below):**

GLENN PATENT GROUP  
3475 EDISON WAY, SUITE L  
MENLO PARK, CA 94025

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 10 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*



US007434052B1

**(12) United States Patent**  
**Rump****(10) Patent No.: US 7,434,052 B1**  
**(45) Date of Patent: Oct. 7, 2008**

- (54) **METHOD AND DEVICE FOR PRODUCING AN ENCRYPTED PAYLOAD DATA STREAM AND METHOD AND DEVICE FOR DECRYPTING AN ENCRYPTED PAYLOAD DATA STREAM**

FOREIGN PATENT DOCUMENTS

DE 196 25 635 C1 12/1997

- (75) Inventor: **Niels Rump, Kent (GB)**

(Continued)

- (73) Assignee: **Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., Munich (DE)**

OTHER PUBLICATIONS

- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

Schneier, Bruce "Applied Cryptography Second Edition" John Wiley and Sons, pp. 30-31 and 53-54.\*

(Continued)

- (21) Appl. No.: **09/913,686**

- (22) PCT Filed: **Dec. 15, 1999**

Primary Examiner—Ayaz Sheikh

Assistant Examiner—Matthew T. Henning

- (86) PCT No.: **PCT/EP99/09981**

(74) Attorney, Agent, or Firm—Glenn Patent Group, Michael A. Glenn

§ 371 (c)(1),  
(2), (4) Date: **Jan. 24, 2002**

**(57) ABSTRACT**

- (87) PCT Pub. No.: **WO00/49763**

PCT Pub. Date: **Aug. 24, 2000**

- (30) **Foreign Application Priority Data**

Feb. 16, 1999 (DE) ..... 199 06 450

- (51) **Int. Cl.**  
**H04L 9/08** (2006.01)  
**H04L 9/30** (2006.01)  
**H04L 9/16** (2006.01)

- (52) **U.S. Cl.** ..... 713/171; 713/160; 713/161;  
380/45; 380/260; 380/261; 380/284

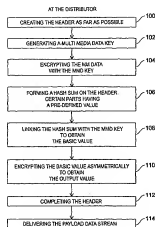
- (58) **Field of Classification Search** ..... 380/45,  
380/284, 260-261; 713/160-161, 201, 171  
See application file for complete search history.

- (56) **References Cited**

U.S. PATENT DOCUMENTS

4,899,333 A \* 2/1990 Roediger ..... 370/427

(Continued)

**30 Claims, 4 Drawing Sheets**

In a method for producing an encrypted method payload data stream comprising a header and a block containing encrypted payload data, a payload data key for a payload data encryption algorithm for encrypting payload data is generated. The payload data is encrypted using the generated payload data key and the payload data encryption algorithm to obtain the block containing the encrypted payload data of the payload stream. A part of the payload data stream is processed to deduce information marking the part of the payload data stream. The information is linked with the payload data by means of an invertible logic linkage to obtain a basic value. This basic value is finally encrypted using a key of two keys being different from each other by an asymmetrical encryption method, the two different keys being the public and the private keys respectively for the asymmetrical encryption method to obtain an output value being an encrypted version of the payload data key. The output value is finally entered into the header to complete the payload stream. Changes of the header and of the payload data itself, which are not authorized, lead to an automatic destruction of the payload data.



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**COMBINED DECLARATION AND POWER OF ATTORNEY**

**(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,  
CONTINUATION, OR C-I-P)**

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As a below named inventor, I hereby declare that:

**TYPE OF DECLARATION**

This declaration is for a national stage of PCT application.

**INVENTORSHIP IDENTIFICATION**

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am an original, first and joint inventor of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

**TITLE OF INVENTION**

METHOD AND DEVICE FOR PRODUCING AN ENCRYPTED PAYLOAD DATA STREAM AND  
METHOD AND DEVICE FOR DECRYPTING AN ENCRYPTED PAYLOAD DATA STREAM

**SPECIFICATION IDENTIFICATION**

The specification was filed on August 16, 2001, as Serial No. 09/913,686.

**ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR**

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, Section 1.56, and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent.

**PRIORITY CLAIM (35 U.S.C. Section 119(a)-(d))**

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

Such applications have been filed as follows.

**PRIOR PCT APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION  
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. SECTION 119(a)-(d)**

INDICATE IF PCT	APPLICATION NUMBER	DATE OF FILING DAY, MONTH, YEAR	PRIORITY CLAIMED UNDER 35 U.S.C. SECTION 119
PCT	PCT/EP99/09981	15 December 1999	yes

**PRIOR FOREIGN APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION  
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. SECTION 119(a)-(d)**

COUNTRY	APPLICATION NUMBER	DATE OF FILING DAY, MONTH, YEAR	PRIORITY CLAIMED UNDER 35 U.S.C. SECTION 119
Germany	19906450.4	16 February 1999	yes

**POWER OF ATTORNEY**

I hereby appoint the practitioner(s) associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

**Customer No. 24283**

SEND CORRESPONDENCE TO:  
**Customer No. 24283**

DIRECT TELEPHONE CALLS TO:  
Carl A. Forest  
303-379-1114

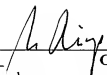
**DECLARATION**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

Niels Rump

Inventor's signature

Date 2002-03-19  Country of Citizenship Germany

Residence Kent United Kingdom

Post Office Address 16 Chatsworth Avenue, Bromley, Kent BR1 1DP United Kingdom

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**COMBINED DECLARATION AND POWER OF ATTORNEY**

**(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,  
CONTINUATION, OR C-I-P)**

---

As a below named inventor, I hereby declare that:

**TYPE OF DECLARATION**

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Such applications have been filed as follows.

**PRIOR PCT APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION  
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. SECTION 119(a)-(d)**

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AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. SECTION 119(a)-(d)**

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**SEND CORRESPONDENCE TO:**  
**Customer No. 24283**

**DIRECT TELEPHONE CALLS TO:**  
Carl A. Forest  
303-379-1114

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**DECLARATION**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

Niels Rump

Inventor's signature \_\_\_\_\_

Date \_\_\_\_\_

Country of Citizenship Germany

Residence Erlangen Germany

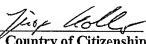
Post Office Address Brueckenstrasse 13, Erlangen D-91056 Germany

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Juergen Koller

Inventor's signature \_\_\_\_\_

Date September 24, 2001

 Country of Citizenship Germany

Residence Erlangen Germany

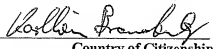
Post Office Address St. Johann 6/113, Erlangen D-91054 Germany

---

Karlheinz Brandenburg

Inventor's signature \_\_\_\_\_

Date September 24, 2001

 Country of Citizenship Germany

Residence Erlangen Germany

Post Office Address Haagstrasse 32, Erlangen D-91054 Germany



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
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Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
09/913,686	01/24/2002	2131	1268	SCHO0093	31	4

CONFIRMATION NO. 3745

GLENN PATENT GROUP  
3475 Edison Way  
Suite L  
Menlo Park, CA94025

CORRECTED FILING RECEIPT

Date Mailed: 07/03/2007

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

**Applicant(s)**

Niels Rump, Erlangen, GERMANY;  
Juergen Koller, Erlangen, GERMANY;  
Karlheinz Brandenburg, Erlangen, GERMANY;

**Power of Attorney:**

Michael Glenn--30176  
Donald Hendricks--40355  
Kirk Wong--43284  
Christopher Peil--45005  
Julia Thomas--52283

**Domestic Priority data as claimed by applicant**

This application is a 371 of PCT/EP99/09981 12/15/1999

**Foreign Applications**

GERMANY 199 06 450.4 02/16/1999

**If Required, Foreign Filing License Granted: 07/02/2007**

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is  
**US09/913,686**

**Projected Publication Date:** None, application is not eligible for pre-grant publication

**Non-Publication Request:** No

**Early Publication Request:** No

**Title**

Method and device for producing an encrypted payload data stream and method and device for decrypting an encrypted payload data stream

**Preliminary Class**

713

**PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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**Title 37, Code of Federal Regulations, 5.11 & 5.15**

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